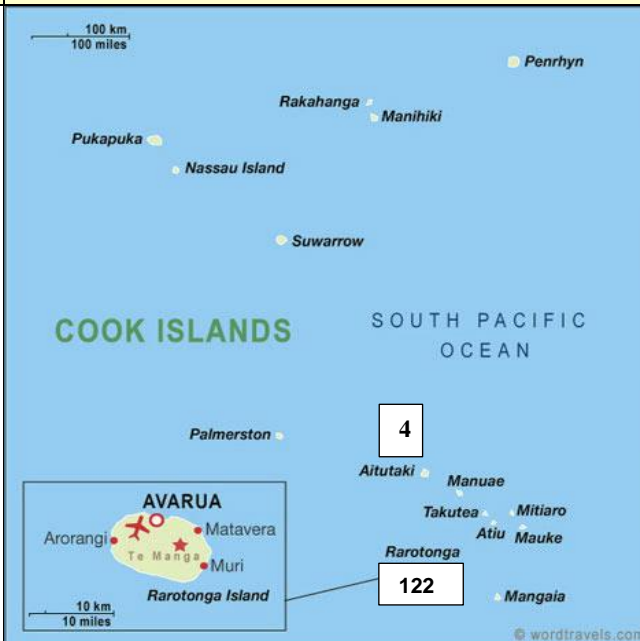
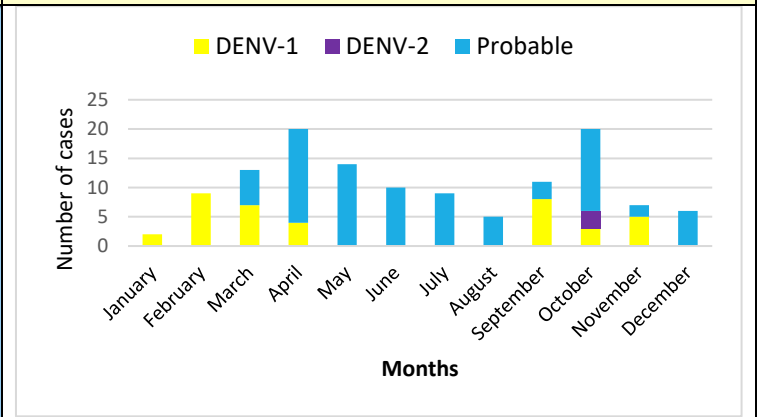
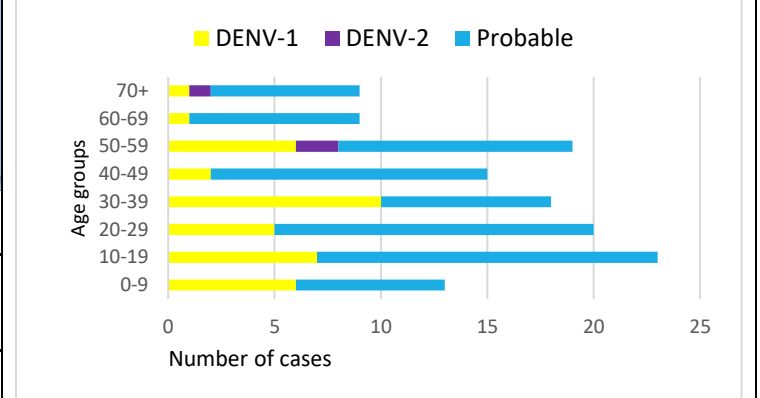
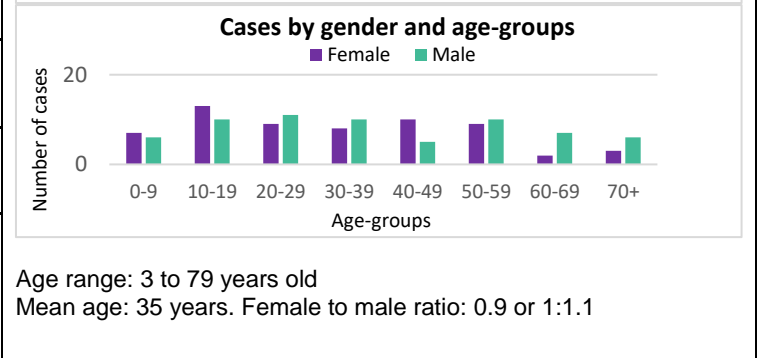


**Denque-1 Outbreak, Cook Islands. Situation Report # 8: ending 31 December 2019.**  
**Reporting Date: 15 January 2020**

Outbreak Overview	Case Distribution by Islands	Cases by month: January 2019 to December 2019																																																								
<ul style="list-style-type: none"> <li>On the 27<sup>th</sup> of February 2019 an outbreak of Dengue type-1 was declared in the Cook Islands following the confirmation of seven (7) cases.</li> <li>Six (6) new probable cases were reported in December 2019</li> <li>From 28 January 2019 to 31 December 2019, a total of 126 cases were recorded, including confirmed and probable cases.</li> <li>Forty eight (48) cases have been hospitalised and discharged since the beginning of the outbreak, and there have been no deaths attributed to dengue infection.</li> <li>Number of cases reported on Aitutaki remains at 4. The first case was reported in April 2019, and the last case in October 2019.</li> <li>Case definition used: <b>Fever</b>, with <b>one or more</b> of the following; nausea/vomiting, rash, aches and pains (e.g. headache, retro-orbital pain (eye pain), joint pain, myalgia, and arthralgia).</li> <li>Laboratory test: RTD SD duo to detect presumptive dengue virus infection</li> </ul>		 <table border="1"> <caption>Cases by month: January 2019 to December 2019</caption> <thead> <tr> <th>Month</th> <th>DENV-1</th> <th>DENV-2</th> <th>Probable</th> </tr> </thead> <tbody> <tr><td>January</td><td>2</td><td>0</td><td>0</td></tr> <tr><td>February</td><td>8</td><td>0</td><td>0</td></tr> <tr><td>March</td><td>7</td><td>0</td><td>6</td></tr> <tr><td>April</td><td>3</td><td>0</td><td>16</td></tr> <tr><td>May</td><td>0</td><td>0</td><td>14</td></tr> <tr><td>June</td><td>0</td><td>0</td><td>10</td></tr> <tr><td>July</td><td>0</td><td>0</td><td>9</td></tr> <tr><td>August</td><td>0</td><td>0</td><td>5</td></tr> <tr><td>September</td><td>8</td><td>0</td><td>3</td></tr> <tr><td>October</td><td>3</td><td>2</td><td>15</td></tr> <tr><td>November</td><td>4</td><td>0</td><td>2</td></tr> <tr><td>December</td><td>0</td><td>0</td><td>6</td></tr> </tbody> </table>	Month	DENV-1	DENV-2	Probable	January	2	0	0	February	8	0	0	March	7	0	6	April	3	0	16	May	0	0	14	June	0	0	10	July	0	0	9	August	0	0	5	September	8	0	3	October	3	2	15	November	4	0	2	December	0	0	6				
Month	DENV-1	DENV-2	Probable																																																							
January	2	0	0																																																							
February	8	0	0																																																							
March	7	0	6																																																							
April	3	0	16																																																							
May	0	0	14																																																							
June	0	0	10																																																							
July	0	0	9																																																							
August	0	0	5																																																							
September	8	0	3																																																							
October	3	2	15																																																							
November	4	0	2																																																							
December	0	0	6																																																							
<p><b>Public Health Responses</b></p>	<p>Summary of cases by Islands as of 31 December 2019</p>	<p><b>Demographics: Cases by Age-group</b></p>																																																								
<p>Vector control intervention program is ongoing.</p> <ul style="list-style-type: none"> <li>Replace mosquito larvae traps destroyed by ex-cyclone Sarai.</li> <li>Peri-focal spraying up to 400m radius from recent cases' properties (3 applications-7 days apart). The weather have been a challenge, delaying spray.</li> <li>Larvacidal application on a fortnightly basis at swampy areas.</li> </ul> <p>Public Awareness continues: News Paper; Radio; Television.</p> <ul style="list-style-type: none"> <li>Reminder to keep home and workplace clean and free of mosquito breeding places, and, protection from mosquito bites.</li> <li>TV roll on at the Rarotonga International airport</li> </ul> <p>Plan:</p> <ul style="list-style-type: none"> <li>Spray all schools on Rarotonga before the 1<sup>st</sup> term begins for 2020.</li> </ul>	<table border="1"> <thead> <tr> <th>Outcome</th> <th>Confirmed DENV-1</th> <th>Confirmed DENV-2</th> <th>Probable</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Rarotonga</td> <td>35</td> <td>2</td> <td>85</td> <td>122</td> </tr> <tr> <td>Aitutaki</td> <td>3</td> <td>1</td> <td>0</td> <td>4</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>38</b></td> <td><b>3</b></td> <td><b>85</b></td> <td><b>126</b></td> </tr> </tbody> </table> <p>No cases reported from the rest of the outer islands.</p>	Outcome	Confirmed DENV-1	Confirmed DENV-2	Probable	Total	Rarotonga	35	2	85	122	Aitutaki	3	1	0	4	<b>TOTAL</b>	<b>38</b>	<b>3</b>	<b>85</b>	<b>126</b>	 <table border="1"> <caption>Cases by Age-group</caption> <thead> <tr> <th>Age groups</th> <th>DENV-1</th> <th>DENV-2</th> <th>Probable</th> </tr> </thead> <tbody> <tr><td>70+</td><td>1</td><td>0</td><td>8</td></tr> <tr><td>60-69</td><td>2</td><td>0</td><td>7</td></tr> <tr><td>50-59</td><td>6</td><td>1</td><td>12</td></tr> <tr><td>40-49</td><td>3</td><td>0</td><td>12</td></tr> <tr><td>30-39</td><td>10</td><td>0</td><td>8</td></tr> <tr><td>20-29</td><td>5</td><td>0</td><td>15</td></tr> <tr><td>10-19</td><td>7</td><td>0</td><td>16</td></tr> <tr><td>0-9</td><td>6</td><td>0</td><td>7</td></tr> </tbody> </table>	Age groups	DENV-1	DENV-2	Probable	70+	1	0	8	60-69	2	0	7	50-59	6	1	12	40-49	3	0	12	30-39	10	0	8	20-29	5	0	15	10-19	7	0	16	0-9	6	0	7
Outcome	Confirmed DENV-1	Confirmed DENV-2	Probable	Total																																																						
Rarotonga	35	2	85	122																																																						
Aitutaki	3	1	0	4																																																						
<b>TOTAL</b>	<b>38</b>	<b>3</b>	<b>85</b>	<b>126</b>																																																						
Age groups	DENV-1	DENV-2	Probable																																																							
70+	1	0	8																																																							
60-69	2	0	7																																																							
50-59	6	1	12																																																							
40-49	3	0	12																																																							
30-39	10	0	8																																																							
20-29	5	0	15																																																							
10-19	7	0	16																																																							
0-9	6	0	7																																																							
		<p><b>Cases by gender and age-groups</b></p>  <table border="1"> <caption>Cases by gender and age-groups</caption> <thead> <tr> <th>Age-groups</th> <th>Female</th> <th>Male</th> </tr> </thead> <tbody> <tr><td>0-9</td><td>3</td><td>3</td></tr> <tr><td>10-19</td><td>12</td><td>10</td></tr> <tr><td>20-29</td><td>8</td><td>10</td></tr> <tr><td>30-39</td><td>6</td><td>8</td></tr> <tr><td>40-49</td><td>7</td><td>5</td></tr> <tr><td>50-59</td><td>8</td><td>10</td></tr> <tr><td>60-69</td><td>2</td><td>6</td></tr> <tr><td>70+</td><td>2</td><td>4</td></tr> </tbody> </table> <p>Age range: 3 to 79 years old              Mean age: 35 years. Female to male ratio: 0.9 or 1:1.1</p>	Age-groups	Female	Male	0-9	3	3	10-19	12	10	20-29	8	10	30-39	6	8	40-49	7	5	50-59	8	10	60-69	2	6	70+	2	4																													
Age-groups	Female	Male																																																								
0-9	3	3																																																								
10-19	12	10																																																								
20-29	8	10																																																								
30-39	6	8																																																								
40-49	7	5																																																								
50-59	8	10																																																								
60-69	2	6																																																								
70+	2	4																																																								